

Nathan Schumaker <

## Survival with & without barred owls

1 message

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Tue, Jul 6, 2010 at 9:37 AM

To: katie.dugger@orst.edu, "Anthony, Robert G - FW" <robert.anthony@oregonstate.edu>

Cc: Bruce Marcot <brucem@spiritone.com>, Brian Woodbridge <Brian\_Woodbridge@fws.gov>, "

Hi Katie & Bob,

With Bob's help, I've used the Forsman et. al. data to construct the following table for HexSim:

```
Stage 0 ; Resource Low
                             0.366
                             0.499
Stage 0 ; Resource Med
Stage 0 ; Resource High
                             0.632
Stage 1 ; Resource Low
                             0.544
Stage 1 ; Resource Med
                             0.718
Stage 1 ; Resource High
                             0.795
Stage 2 ; Resource Low
                             0.676
Stage 2 ; Resource Med
                             0.811
Stage 2 ; Resource High
                             0.866
Stage 3 ; Resource Low
                             0.819
Stage 3 ; Resource Med
                             0.849
                             0.865
Stage 3 ; Resource High
```

We took the low and high estimates for survival, per stage class, and assigned them to my low and high resource classes. Then I assigned the mean survival rates (again, per stage class) to the medium resource class.

You've since put together survival estimates for NSOs in the absence of barred owls (0.849894) and in the presence of barred owls (0.764236). I've made the assumption that the Forsman et. al. survival data was collected in the presence of barred owls. So I multiplied those values by 0.849894 / 0.764236 = 1.112083to get the NEW values below:

					OLD	NEW
Stage	0	;	Resource	Low	0.366	0.407
Stage	0	;	Resource	Med	0.499	0.555
Stage	0	;	Resource	High	0.632	0.703
Stage	1	;	Resource	Low	0.544	0.605
Stage	1	;	Resource	Med	0.718	0.798
Stage	1	;	Resource	High	0.795	0.884
Stage	2	;	Resource	Low	0.676	0.752
Stage	2	;	Resource	Med	0.811	0.902

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```
      Stage 2 ; Resource High
      0.866
      0.963

      Stage 3 ; Resource Low
      0.819
      0.911

      Stage 3 ; Resource Med
      0.849
      0.944

      Stage 3 ; Resource High
      0.865
      0.962
```

The values in the NEW column are thus assumed to reflect survival rates if there were no barred owls present.

Does this make sense to you? Have I misinterpreted or misused those survival data you sent? I'd appreciate any thoughts you have!

Thanks,

Nathan

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Nathan Schumaker

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